

TITLE of the INVENTION

"Methods and devices for sending and receiving information, and systems using them"

TEXT of the ABSTRACT

An original information sequence is encoded (E1) by means of an error correcting code; there is associated (E2) with the encoded sequence K frequency symbols in a space consisting of a series of 2^p increasing frequencies, each of the K symbols representing N encoded symbols, p, K and N being strictly positive integers; there is applied (E3) to the K symbols a reversible transformation including a multiplication by an invertible matrix of size $N \times N$; and signals obtained from the inverse transform signals are sent (E4). There exists a K-tuplet of positive integers n_1, n_2, \dots, n_K at least one of which is strictly positive, such that, for an integer i varying from 1 to K, after periodic extraction of one frequency out of 2^{n_i} amongst the frequencies of the i^{th} of the K symbols, thus forming a reduced frequency symbol with 2^{p-n_i} frequencies, K reduced frequency symbols are obtained, representing the original information sequence, with a view to complete or partial decoding.

Figure 11.